



Title: Plant Lecithin:Cholesterol  
Acyltransferases  
Inventor: Edgar B. Cahoon et al.  
Application: 09/857,612  
Docket: BB-1262

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Arabidopsis\_ (gi\_ 3935185) TKVFHDRTKPLVVT PQVNTA--YEMDRFFADIGFSQGVVYKTRVLPLTEELMTPGVPV  
corn\_(SEQ ID NO:2) PAVFGR--RPLVVTARRNSA--YDLEDLLAVGYGAGVEPFRRAVPKMSYFQAPMVPT  
corn\_(SEQ ID NO:4) PNAFRA-GOPLVTTSRSYTA--HDMADEFLDAIGLGAIAIVPYQSRVLPLFRELPSPRVPM  
corn\_(SEQ ID NO:6) PAVFGRLOQPLVVTERRNSASAHDMERFLAAVGSGEAAEPFRRAVPKGMSFAAPMVPM  
soybean\_(SEQ ID NO:8) PKIF-GPQKPIVITPIRPSA--HDMVDFLKDIGFPEGVYPPYETRILPLIGNIKAPQVPI

Arabidopsis\_ (gi\_ 3935185) TCIV  
corn\_(SEQ ID NO:2) TCMN  
corn\_(SEQ ID NO:4) ACVV  
corn\_(SEQ ID NO:6) TYIS  
soybean\_(SEQ ID NO:8) TCIM  
  
Arabidopsis\_ (gi\_ 3935185) TVEIDGVSHTSILKDEITALKEIMQISIINY--ELANVNAVNE  
corn\_(SEQ ID NO:2) SIKIRGAQHGTIVTDDTALKRVMHEILEANR-----S  
corn\_(SEQ ID NO:4) MLKVRSNVSHTGLFVDDAALAVIISAI-----LRPN  
corn\_(SEQ ID NO:6) SIKINKAQHSTIVTDDFLHRVIEIVEANNQK-----IPS  
soybean\_(SEQ ID NO:8) VVKIDGVSHTSILKDEVALNEIVGEITSINSHAELGLSNLFSG

FIG. 1B

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*Arabidopsis* (gi 3935185) MKK-----I-SHYSVVIAILVVVTMTSMCQAVGSN-----VYPLILVPGNGGNQLEVR  
*corn* (SEQ ID NO: 2) MAR-IPQVLAPLILLIPAGLR-ELMIDRRRPLPKRCRREVLLHPLVLVPGLTCSLELDAR  
*corn* (SEQ ID NO: 4) MVHDMAS-----CSRGGTIVLISKFASTTRRAPKQ-----LPPVVVVPGYATNELDAR  
*corn* (SEQ ID NO: 6) MASSLLQQLLSLLLIPSPLRLREHLSGNHHAWSAN-----NFHPIFILVAGVSCSDLEAR  
*soybean* (SEQ ID NO: 8) MKKEQQEGL-KIEVATLTVVVVVMISLLCTCGASN-----LDPLILIPGNGGNQLEAR

*Arabidopsis* (gi 3935185) LDREYKPSSWVCGWERLWMDAAVLLSPET-RCFSDRMMLYYDPDLDDY  
*corn* (SEQ ID NO: 2) LTDAYRPFRAACDE-----GEGLVRVLWTNCSDLPAHHYVRCFCMFEMEQMALVYDPVANDY  
*corn* (SEQ ID NO: 4) LTELYHPSSPRCA-----HKKGKWFRYLINYTALEDAADVRCFAEQMATAYDAASDDY  
*corn* (SEQ ID NO: 6) LTEEYRPSVPHCGA-----MKKGKWEGLWKNSSELLSRDYVQCEEQMSLVYDPAINEY  
*soybean* (SEQ ID NO: 8) LTNQYKPKSTFICESW-YPLIKKKNGWFLWFDSVVILAPFT-QCFAERMTLHYHQELDDY

*Arabidopsis* (gi 3935185) QNAPGVQTRVPHEGSTKSLLYDPLRDRDATSYMEHLVKALEKKCGYVNQQTIL  
*corn* (SEQ ID NO: 2) RNLPGVETVRNEGSSRGF-QKNPPEHTTWSWCFFEVLRNELARA-GYRDGDTLF  
*corn* (SEQ ID NO: 4) RNAQGVETRVPPFGSTRAFRYPDPDRRNF-SYMDKFVSRLERL-AYRDGENLF  
*corn* (SEQ ID NO: 6) RNLAGVETRVPNEGSTRAFSHKNPLKSD--WCLGKIRRAALEDAM-GYRDGDTMF  
*soybean* (SEQ ID NO: 8) FNTPGVETRVPHFGSTNSNLLYLNPRLKHTGYMAPLVDSLQKL-GYADGETLF

*Arabidopsis* (gi 3935185) GLAASGHPSRVAQSQFLQDLKQLVEKTSSNEGKPVILLS LFLVLHFLNRRTTPSWR  
*corn* (SEQ ID NO: 2) APPVPGQPSRSSPATSVGWPSLVEDASRKNRGRKVILFG MVALEFVRSTPMAWR  
*corn* (SEQ ID NO: 4) AVAPPGHPSRVAADAFFGRLLRIVERASRANGGGPVTIVA TVAHQFLLRRPLPWR  
*corn* (SEQ ID NO: 6) APPSPGQTSEVYSRYFEKLMELIVEAASERTR-KKAVILG MVALEFVRNTPPAWR  
*soybean* (SEQ ID NO: 8) GLAAEGHPSQVGSKELKDLKNLIEEASNNSNNGKPVILLS LFLVQLLNRPNSWR

*Arabidopsis* (gi 3935185) RKYIKHVALAAPW-GGTISQMKTFAASGNITLG-VPLVNPL-LVRRHQTSESNNQWLPS  
*corn* (SEQ ID NO: 2) DRYIKHLEFLVAPVPAEGFVKPLQYFVSGSNLIMYVPTVSSLEPAFRPMWRTFESSLVNEFPS  
*corn* (SEQ ID NO: 4) RRFVRRFVPPVAAPW-GGVVLGMILTIIVAGNNLG-LPFVDPL-ALKGEYRSLOSSLWPLPN  
*corn* (SEQ ID NO: 6) REHIERLVLVAPTLPGGFLEPVRFNFAASGTDLIYVPATPLAT--RAMWRSFESAIVNFPSS  
*soybean* (SEQ ID NO: 8) KKFIFKHFIALSAPW-GGAIDEMYTFASGNITLG-VPLVDPL-LVREDEQRSSESNLWLLPN

FIG. 1A